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ABSTRACT

The goal for the instructional program at Luckie Street Elementary School was to improve instruction in all subject areas at all grade levels. However, reading was identified as the subject area which would be emphasized in grades one through seven, with special help for grades one through three, through the Comprehensive Instructional Program. The special or supplementary programs were aimed at enriching and/or strengthening the regular instructional program. The goals or objectives of some of the programs are as follows: (I) Reading programs: the overall objective was that pupils gain at the rate of one grade level per year; (II) Volunteers for Reading: the goal was to assist teachers with the instruction of reading; (III) Tech Brother Programs: the goal of this program, involving 24 Georgia Tech Students working with 24 pupils on a one-to-one basis, was to provide the pupil with a model male image while engaging in remedial tutorial and enrichment activities; and, (IV) Program for Education and Career Exploration: the overall goal was to provide pupils with experiences and information that will serve to help them formulate a basis upon which appropriate educational and occupational choices can be made at future major decision points. (Author/JM)

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RESEARCH AND DEVELOPMENT REPORT

Vol. V, No. 36 March, 1972

# LUCKIE STREET ELEMENTARY SCHOOL

1970-71

Mrs. June McRae
Counselor

Gladys Eubanks
Principal

Prepared by

Mrs. Vera M. Ireland
Research Associate

Mrs. Jan Lauchner
Statistician

Dr. Jarvis Barnes
Assistant Superintendent
for Research and Development

Dr. John W. Letson
Superintendent

Atlanta Public Schools
224 Central Avenue, S. W.
Atlanta, Georgia

UD 012869

PREFACE

An analysis has been made of certain performances of pupils at Luckie Street Elementary School. Some of the results are reported in this publication and reflect the cooperation of the administration and faculty of the school and the staff members of the Research and Development Division.

This analysis is part of an effort to develop a method of showing accountability for the educational responsibilities of the school system to the children of Atlanta. The data contained in this developmental endeavor should not be used or quoted out of context. The report is primarily for the use of the individual school and other school personnel who have an influence on improving the effectiveness of the instructional program. It provides data which show trends and which can be used for the purpose of making further examinations for promoting pupil progress.

Jarvis Barnes
Assistant Superintendent
for Research and Development

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## I. INTRODUCTION

This report is based on a process type of evaluation of the total program at Luckie Street Elementary School, rather than a summary report on federally funded programs. This approach encompasses a description of pupils, goals of the instructional program, management and control factors, selected program variables with accompanying behavioral objectives and an analysis of the findings. The process evaluation focuses on these main components of accountability in order to provide school personnel with feedback information that will be useful in planning and improving the instructional program.

## II. PARTICIPANTS

Luckie Street Elementary School is located in Area I. The zone boundaries for this school community are identified by a map in the Appendix. The average rank at Luckie is 79.0 among 120 elementary schools, with the order of rank: from most desirable (rank of 1) to least desirable (rank of 120). The average ranks are based on 1970-71 data as follows: per cent of attendance, 72; stability, 45; per cent of pupils passing, 113; fourth grade reading, 44.5; and per cent of paid lunches, 90.5. The average Luckie rank of 73.1 ranks 79 among the 120 schools.

The stability (converse of mobility) of the school population in the Luckie area has fluctuated during the past decade. However, the recent mobility indices indicate some stabilization of the population. The stability indices for the past four years are: 1967-68, .53; 1968-69, .38; 1969-70, .62; and 1970-71, .78. The stability index is computed by subtracting from 1.0 the mobility index (migration divided by the average active roll).

There were approximately 300 pupils on the active roll at Luckie during the 1970-71 school year. Characteristics of pupils will be further identified as specific programs are described.

## III. MANAGEMENT AND CONTROL

This section deals with the organization of personnel for the implementation of the goals of the instructional and supportive programs. In addition to the full-time school assigned personnel, a number of part-time specialists, area resource staff members, and community volunteers were involved in the instructional program. All supplementary staff including the counselor, librarian, educational aides, and volunteers were utilized to reinforce and/or enrich the regular instructional program. In some cases, direct assistance was given to the classroom teacher. Special programs such as the Drama Program, the Volunteers for Reading, and the Georgia Tech Brother Program were used to strengthen the instructional program.

Personnel identified by title, whether they served full time or part time, and the source of funds for employment were as follows:

| No. | Title | Full Time | Part Time | Source of Funds |
|---|---|---|---|---|
| 11 | Classroom Teachers | X | .. | General |
| 18 | Volunteers for Reading, All Saints Episcopal Church | .. | .15 | .. |
| 24 | Georgia Institute of Technology Brothers | .. | .03 | .. |
| 4 | Drama Program -- Atlanta Chapter Federation of Jewish Women | .. | .03 | .. |
| 1 | Counselor | X | .. | Title I |
| 2 | Educational Aides | X | .. | Title I |
| 1 | Teacher (Prekindergarten -- Teaching Team) | X | .. | Title I |
| 1 | Assistant Teacher (Prekindergarten -- Teaching Team) | X | .. | Title I |
| 1 | Educational Aide (Prekindergarten -- Teaching Team) | X | .. | Title I |
| 1 | Coordinator for Program of Education and Career Exploration Program (PECE) | X | .. | General |
| 1 | Social Worker | .. | .2 | Title I |
| 1 | Librarian | X | .. | General |
| 1 | Music Teacher (Vocal) | .. | .5 | General |
| 1 | Band Teacher | .. | .2 | General |
| 1 | Art Teacher | .. | .2 | General |
| 1 | Physical Education Teacher | .. | .2 | General |
| 1 | Speech Teacher | .. | .4 | General |
| 1 | Teacher for the Partially Sighted | .. | .5 | General |

No lead teacher was assigned to Luckie. However, the counselor assisted the principal by assuming many of the responsibilities normally assigned to a lead teacher. An effort was made to utilize special skills of all personnel so that their maximum contribution could be made to the school.

The counselor assisted the principal in coordinating and supervising the regular instructional and supportive programs. However, each faculty member was encouraged to identify and use available in-school and community resources.

Staff meetings were held on a special needs basis. Usually, these were held for staff and/or volunteers involved in specific programs such as PECE and Volunteers for Reading. Also, staffings were held occasionally to discuss individualized program plans for pupils with problems.

The librarian was responsible for storing and checking out the general equipment and instructional materials. These are listed below:

| Equipment | Materials |
|---|---|
| Language Master | Houghton Mifflin Basal Texts |
| Cyclo-Teacher -- different subject matter for grades 4-7 | Open Highways Co. -- Basal Texts<br>Sullivan Program for Remedial Work |
| Listening Stations | Trade Books<br>Comic Books<br>Paperback Books |
| Controlled Reader | Portfolios from work programs |
| Overhead Projector | Tapes |
| Radio-TV | Filmstrips |
| Tape Recorders | Learning games |
| 2 Sewing Machines | |
| 11 Typewriters | |

Over a period of several years, special efforts were made to develop good home-school-community relationships. These efforts were channeled through a Community Advisory Committee and an Inter-Agency Council.

The Community Advisory Committee was organized by the principal with representation from the Parent-Teachers Association, other parents, and professional and business members from the community. This committee met "on call" to discuss the regular instructional and supplementary programs. It was through this committee that many of the community resources were identified and recruited for the school programs.

The principal and counselor were active in helping organize an Inter-Agency Council for the Central City Area in which Luckie Elementary School

is located. The council had representative members from agencies and organizations located in the area. The purpose of the monthly meetings was to identify needs, avoid duplication of services, and discuss problems of mutual concern.

## IV. OBJECTIVES AND GOALS

The goal for the instructional program at Luckie was to improve instruction in all subject areas at all grade levels. However, reading was identified as the subject area which would be emphasized in grades 1-7 with special help for grades 1-3 through the Comprehensive Instructional Program (CIP). The special or supplementary programs were aimed at enriching and/or strengthening the regular instructional program. The goal or objective of each program was as follows:

A. Reading Program

The overall objective for the instruction of reading was that pupils gain at the rate of one grade level per year. However, each classroom teacher formulated a specific objective for pupils in each of the performance levels in her classroom.

B. Supplementary Programs

1. Volunteers for Reading

The goals for the Volunteers for Reading program was to assist teachers with the instruction of reading so that pupils would develop more competency in reading.

2. Tech Brother Program

The Tech Brother Program involved 24 Georgia Tech Students working with 24 pupils on a one-to-one basis for the purpose of providing the pupil with a model male image while engaging in remedial tutorial and enrichment activities.

3. Program for Education and Career Exploration (PECE)

The PECE Accountability Objectives are described in Section V with a general description of the program.

4. Typing

The objectives of the typing program for all seventh grade pupils were.

a. All pupils in the typing program will learn to use the keyboard by touch as determined by the teacher.

b. All pupils will show an increase on all items scored on the Typing Progress Report.

c. Each pupil will have opportunities for self-evaluation and competitive experiences.

d. Each pupil will increase his self-concept between pretest and posttest using the About Myself Scale.

e. Each child will participate in at least one individual and one group typing project.

5. Parent Involvement

The parent programs were designed to help parents understand the objectives and procedures of the instructional programs, to give the parents guidance in helping children continue their learning experience at home, and to provide opportunities to parents to assist with the instructional program.

6. Counseling Program

The goal of the Counseling Program was to work with teachers, pupils, and parents (individuals and groups) in an effort to help each child develop, academically and personally, to their full potential. The behavioral objective of one of the programs conducted by the counselor was that pupils of the first and third grades would improve their attitudes (not significant) as measured by the pretest and posttest of the Student Attiudes Toward Learning Questionnaire. (See Section VI for additional goals of this program.)

7. Library Program

The goal of the librarian was to function as a member of the instructional teams by assisting teachers and their pupils with a broad variety of services.

8. Drama

The purpose of the drama program was to provide enrichment activities to reinforce learning in the areas of language, arts, and communication, and to develop self-concepts.

9. Health Program

The Health Program focused on obtaining dental care, immunizations, and general health services for the families of all pupils.

10. Girl Scout Program

The school encouraged the development and sponsorship of the Girl Scout Program after recognizing the lack of group activities for girls in the community.

11. Folk Dancing

This program was organized and operated with the cooperation of the City Recreation Department in order to provide needed recreational activities for pupils after regular school hours.

## V. DESCRIPTION OF PROGRAMS

The special or supplementary programs, maintained for the purpose of reinforcing and/or enriching the regular instructional program, have been in operation for one or more years except for the new thrust in reading in grades 1-3 and the PECE program. The programs are described briefly in this section.

A. Reading

1. CIP (Grades 1-3)

The CIP was designed to improve instruction in all subject areas. During 1970-71, the stress was in the Reading Program for grades 1 through 3. The approach used included: Diagnosing of individual pupils to identify weaknesses, formulating goals and behavioral objectives to alleviate the weaknesses, testing

progress at designated intervals, interpreting the test data, and training teachers to operationalize the program.

An Area CIP resource teacher assisted the teachers at Luckie through preservice and inservice training during staff meetings and occasional conferences with individual and/or grade level groups of teachers. Luckie was not one of the schools designated for intensive assistance with the CIP program.

2. Reading (Grades 4-7)

Each class, 4 through 7, had group and individualized reading programs. The advanced sixth and seventh graders studied literature appreciation and research skills with the assistance of the librarian.

The teacher assigned to the second and third grade combination class set up a remedial program from 11:30 a.m. to 1:00 p.m. each day for upper-grade poor readers. By utilizing the services of the librarian, teacher aide, and other personnel, this teacher was able to advance these pupils through the Sullivan Programmed material while her own pupils were having lunch, physical education, and enrichment activities. Also, two parents were trained to assist with this reading program.

The counselor and classroom teachers selected the 12 pupils who participated in this individualized remedial program. They also occasionally selected seventh grade poor readers to work with lower grade poor readers.

B. Supplementary Programs

The program activities designed to carry out the goals and objectives of these programs, as listed in Section IV, are described here.

1. Volunteers for Reading

Eighteen volunteers from the nearby All Saints Episcopal Church were trained to tutor pupils on a one-to-one basis in

reading. Six of these volunteers came each day for three days per week, throughout the year, to work with pupils from 9:30 a.m. to 11:00 a.m. The classroom teachers who referred pupils to this program held brief but frequent conferences with the tutors in order to insure a continuing and progressive experience for each pupil.

Criteria used for selecting the 16 pupils to be tutored by these volunteers were: (1) first grade repeaters, (2) low second grade pupils, and (3) pupils who were poor readers from all grades.

2. Tech Brother Program

Students at Georgia Institute of Technology (Georgia Tech) volunteered to serve as Tech Brothers to boys on a one-to-one basis. Twenty-four Georgia Tech students and twenty-four Luckie pupils (from grades 1 through 7) who were not otherwise tutored, participated in this program during 1970-71. Each "Brother" had at least one contact, of one or more hours, a week with the pupil assigned to him. These meetings were held immediately after school, in the evening, and/or during the weekend. Each pupil and his "Brother" had individualized planned activities depending on the needs of the pupil. These activities included: tutoring sessions, going to a ball game, going to see sights of interest, and "just talking." The main emphasis in each pupil's program was discussed with his teacher and counselor on a continuing basis.

3. Program of Education and Career Exploration (PECE)

This is a special program for upper elementary and high school pupils which is sponsored through the Vocational, Technical and Adult Education Division. The PECE program is designed to provide pupils with experiences and information that will serve to help them formulate a basis upon which appropriate educational and occupational choices can be made at future major decision points.

Through the use of direct or simulated work experiences as the central core from which each of seven occupational groups are explored and studied, the program allows pupils to engage in concrete experiences within particular work settings. The concrete or "hands-on" work experiences thus provide the base from which a series of group guidance units are employed to allow the pupil to internalize his recent experiences and feelings, and to gain greater insight into the relationship between himself as a unique individual and the various facets of the employment setting.

The general accountability objectives for PECE were:

a. The pupil has a better image of himself.

b. The pupil feels that there is dignity in some jobs which he previously did not respect.

c. The pupil can differentiate more specific occupations by relating them to broad occupational categories.

d. The pupil can identify more accurately the types of training that are appropriate for a greater number of specific occupations.

e. The pupil can recognize levels of performance better in an occupational category.

f. The pupil more accurately can match skills, abilities, or worker traits to jobs at various levels and in various occupational categories.

g. The pupil can recognize differences in jobs due to psychological factors or pressures.

h. The pupil can realize different careers may mean different life styles.

i. The pupil can identify all educational and training facilities whithin commuting distance of his home.

j. The pupil can match the schools in his area with the kinds of training they offer.

k. A greater number of pupils will take advantage of the training offered in vocational programs.

l. The pupil can identify a number of sources for information about possible employment.

m. The pupil can describe a job-seeking and interviewing procedure.

n. Pupil visits to the counselor will increase.

o. Pupil absenteeism will be reduced.

p. Dropout rates in school having a PECE program for a period of not less than three years will be reduced.

q. There will be an increase in the number of pupils who state that their educational goal includes completion of high school.

Thirty seventh grade pupils participated in the PECE program for one of two semesters at Luckie during 1970-71.

4. Typing

The instructor for this program was the counselor. She designed it to provide opportunities for pupils to have learning experiences in language arts, creative writing, and spelling. There were 11 typewriters available for this program. Twenty-two seventh grade pupils were taught to use the keyboard. Activities included: writing letters, writing creative compositions, poems and stories, interviewing school personnel for news stories, and publishing a newspaper. "Thinking at the typewriter" was encouraged.

5. Parent Involvement

There were three major thrusts in the parent involvement program at Luckie: (1) Community Advisory Committee, (2) Parent-Teacher Association (PTA), and (3) direct involvement in the instructional program. The counselor and the

prekindergarten teacher spearheaded parent involvement activities.

a. Community Advisory Committee

The Community Advisory Committee, described in Section III provided a channel through which any parent could initiate a discussion of a problem and advise the school faculty of a possible solution.

b. Parent-Teacher Association (PTA)

Through the monthly PTA programs, an effort was made to provide opportunities for parents to be aware of services and resources in the community, as well as the school program itself. The first fall PTA program presented a panel representing each of the community services included in the Inter-Agency Community Council. Other programs were focused on consumer education and discussions on current school activities. The PTA helped sponsor some school programs such as charm and self-improvement programs. For this program, they helped identify some resources and paid for the extra expenses incurred.

c. Involvement in Instructional Program

A series of workshops were conducted for parents to help them understand the regular and supplementary instructional program, and see how they might support and assist in their child's development program.

A two-day workshop for parents was conducted at the beginning of the fall term for parents of prekindergarten and kindergarten pupils. Content of the workshop included: (1) growth and development of the child, (2) materials and aids parents can use in home to promote learning, and (3) opportunities to visit school for observing and participating in programs. Similar workshops were held for these

parents each quarter. During the spring, there was a discussion on how parents can plan for their child's summer activities, such as using the resources of the community library. The librarian at the community public library assisted with this workshop.

Workshops were also held for the parents of pupils in grades 1 through 3, and another for parents of pupils in grades 4 through 7. Topics for discussion at each of these workshops include: growth and development of the child and "common problems." Parents were encouraged to visit the school, observe their children's classroom and have a conference with their teachers. Parents also were encouraged to have lunch with their children at school. The principal volunteered to release any teacher from classroom responsibilities for this purpose.

Through the Emergency School Assistance Program (ESAP) funding five parent aides were employed to serve as classroom aides for six weeks during the spring quarter. These aides helped the teacher to individualize instruction by providing clerical and tutorial services. Orientation and inservice sessions for the aides were conducted by the counselor.

6. Counseling Program

In addition to the counselor's participation in the programs discussed above, and serving as a liaison in the school community, she scheduled individual conferences with pupils and conducted group sessions for pupils. When appropriate, individual pupils were referred for community services. Group sessions for pupils are described briefly here:

a. Kindergarten and First Grade Pupils -- The Developmental Understanding of Self and Others (DUSO Kit) was used

as a basis for these programs. These kits, produced by the American Guidance Institute, are being developed by Dr. Don Dinkmeyer, for grades K through 7. Kits for other grade levels are being developed. The K-1 grade level kit was purchased with Title I funds. The kit includes: puppets, records, charts, and posters. The children engage in drama, role playing, and discussions. (This program had to be discontinued without evaluation because the counselor had to assume the duties of acting principal when the principal was hospitalized for two months.)

b. Grade Levels 2 through 7 -- Various filmstrips, related to understanding self and others, were shown to pupils in these grades and used as a basis for discussion.

c. Grade 7 -- While the counselor held weekly sessions with the girls in the seventh grade, the male seventh grade teacher held group sessions with the boys. Topics for discussion, concerning understanding individual needs and relationships, were suggested by the pupils.

d. Charm and Self-Improvement -- The plans for this program were based on the realization that appearance, apparel, and carriage are related to a person's total self-concept. The counselor made arrangements with Sears, Roebuck and Company and the school PTA, with the cooperation of Rich's downtown, to sponsor a free charm and self-improvement program, including modeling for 35 sixth and seventh grade girls. This program consisted of 12 weekly lessons by the Sears fashion coordinator. The curriculum included charm, poise, posture, personal grooming, selection and care of clothes, modeling, and other phases of self-improvement.

At the conclusion of the program, Sears invited the girls to a luncheon and fashion show at Rich's downtown.

The final phase of the program was a fashion show presented by the girls for their parents and the rest of the school. Under the guidance of the Sears fashion coordinator, each girl selected her own outfit to wear for the show. (Sears offered each girl the privilege of buying her outfit with a ten per cent discount.)

In order for the fourth and fifth grade girls not to feel left out, they were given a four-week course in grooming by a representative from the Young Women's Christian Association. A representative from Canolene Cosmetics assisted with one lesson. Canolene Cosmetics later invited the girls on a tour of their plant.

7. Library Program

The librarian's role was considered to be a "member of the instructional teams." Responsibilities assumed by the librarian included the following:

a. Facilitated book usage through activities such as helping pupils use library books and printed materials, and checking out books to pupils and parents.

The total number of books in the library was 12,229 or an average of 12 per child. The accumulated yearly attendance for service was 14,740. The yearly circulation was: 12,229 books, 60 pamphlets, 233 periodicals, and 230 newspapers (total of 12,752).

b. Stored and "checked out" equipment to teachers.

c. Provided instruction on operation of all audio-visual equipment to teachers and volunteers who used the equipment.

d. Conducted classes for pupils, upon request of the teacher, on topics such as library skills, book reports, outlines, and research methods.

e. Presented enrichment and/or curriculum related films and led follow-up discussions for pupils at all grade levels.

f. Participated in the Reading TV program and follow-up for "Cover to Cover," Magic Book I, and Magic Book II.

g. Provided instructional aids for classrooms upon request of teachers. These aids included films, pamphlets, professional books, newspapers, and magazines. This service called for identifying and reserving aids related to specific instructional topics.

h. Conducted a weekly library activity period for each class. Activities of this period included: story hour based on the Magic Book series, drama, skits, and the like.

i. Planned, promoted, and coordinated activities related to a Book Fair held during Book Week.

j. Held classes with nine advanced sixth and seventh grade children for enrichment and literature appreciation. These pupils attended this class one period each day.

8. Drama

The purposes of the drama program conducted for four volunteers were to reinforce learning in the areas of language arts and communication, and develop self-concepts. The volunteers scheduled at least four work sessions with each class. These sessions were scheduled so as to have continuity and complete a production. Pupils were taught to design and make scenery, costumes, and puppets. Three

groups performed for pupils in other grades. Group presentations by grade levels were:

a. Prekindergarten through Second Grade -- A variety of puppets used by the pupils to portray stories to which they were listening or reading. They performed Hansel and Gretel for pupils in other grades during the late winter quarter.

b. Third and Fourth Grades -- This group of pupils produced Peter and the Wolf during the winter quarter.

c. Fifth and Sixth Grades -- Pupils in these grades were the first to produce and present a play to all other pupils. They produced the Wizard of Oz in the fall of 1970.

9. Health Program

Health services were developed with the cooperation of the Fulton County Health Department. These services were dental care, immunizations, and general health. The Fulton County dental hygienist set up shop in the school and cleaned the teeth of all pupils. In addition, the school arranged to transport five children to the Dental Clinic each week for dental work.

The Fulton County health nurse held a clinic in the nearby Palmer House. She coordinated the programs for immunizations, testing of hearing, and testing of vision and other health needs of the school. She was available for consultation or conference regarding specific health problems. Parents served as assistants in the testing of vision and hearing.

10. Girl Scout Program

The coordinator of the PECE program has been a Girl Scout leader for the school and community for several years. She holds weekly meetings with the troop of girls.

The troop planned and carried out several camping trips during the year.

11. Folk Dancing

A dancing instructor of the City Recreation Department conducted folk dancing classes each Wednesday after school for the third through seventh grade boys and girls.

## VI. PREKINDERGARTEN

The prekindergarten program at Luckie is one of the ten programs funded by Public Law 89-10, Title I. These programs, initiated in 1966 on a three-quarter basis, have the primary purpose of curriculum development. The need for focusing on educational programs for the preschool children was based on the fact that the major development of a child's intellectual growth takes place before he is of school age.

An instructional team composed of a teacher, an assistant teacher and an educational aide worked with a group of 20 four-year old pupils. The objectives for the preschool programs were as follows:

A. To develop perceptual skills, motor skills, social behavior, positive self-concepts, and various cognitive skills in four-year-old disadvantaged children.

B. To develop a curriculum for four-year-old disadvantaged children commensurate with their individual needs, focusing upon strengths as well as weaknesses.

C. To bring parents into the planning and implementation of the child's educational life.

D. To provide for preschool teachers' inservice training experiences related to the problems involved in teaching such children.

E. To provide snacks and meals for children in the program, according to the Office of Economic Opportunity (OEO) nutritional guidelines.

F. To provide a program of nutrition education for pupils, parents, and staff.

## VII. INSERVICE TRAINING

There was an inservice training program for parents, volunteers, and faculty members. Inservice training for volunteers working on the various special programs was handled separately for the various programs.

Tech Brother Program -- A faculty member at Georgia Tech provided orientation, inservice training, and continuing supervision to the volunteers for the Tech Brother Program. Also, each teacher of the 24 pupils involved carried on a continuing dialogue with the Tech Brothers regarding the progress and needs of the pupils. The counselor made contributions in her role as coordinator of the program.

Reading Program -- This program was coordinated by the principal and counselor who also provided orientation and inservice training for the volunteers who participated. The teachers involved maintained a helping relationship with the volunteers, in order to insure their pupils a continuing program.

Drama -- The volunteers who worked with the drama program are professionally trained. The counselor and principal oriented them to the school and gave assistance needed to facilitate the program.

## VIII. EVALUATION

The evaluation focused on academic achievement, especially reading, as measured by the Metropolitan Achievement Tests (MAT) and selected supplementary and special programs. Information on academic achievement data is included for grades 2 through 7, however, detailed data are given on selected grade levels (2, 3, and 7). Supplementary and special programs evaluated are: (1) Volunteers for Reading, (2) Tech Brothers Program, (3) PECE, (4) Typing, and (5) Prekindergarten. The evaluation in this section includes the reporting and analysis of data for academic achievement, supplementary, and special programs. The data tables are included in the Appendix.

### A. Academic Achievement

The Metropolitan Achievement Tests (MAT) was administered city-wide in the fall of 1970 and spring of 1971 to grades 2 through 7 and to the

first grade in the spring only. These test scores, for grades 2 through 7, were matched by pupil identification number (I.D.) so as to enable calculation of actual gain in terms of grade equivalents. In matching I.D. numbers, three groups were derived -- those pupils who had the pretest only, those who had the posttest only, and those who had both pretest and posttest.

In this report, the emphasis is placed mainly on the third group who had both pretest and posttest and the results are reported by grade level. Illustrative tables are included for grades 2 through 7. Special emphasis was placed on grades 2, 3, and 7, through CIP in grades 2 and 3, and the typing program in grade 7. The expected gain for all grade levels in grade equivalents was .63, which would indicate one month's gain for a month in the program. The expected level on the posttest mean grade equivalent, since the posttest was given in the seventh month of the school year.

1. Second Grade

The rate of gain, shown in Table 1 indicated that the gains on the Reading and Math Total subtests exceeded the expected 100 per cent while the gains made on the other subtests (Word Knowledge, Word Analysis, and Reading Total) did not reach the expected level of gain. The second grade did not reach the posttest grade equivalent of 2.7 even on the Reading and Math Total subtests where the rate of gain was above 100 per cent. The Luckie Street second grade average posttest scores are, however, above the average posttest scores of the low socio-economic schools on all subtests and above the average posttest scores of Luckie Street, Area I, and city-wide where the scores are not matched by pupil I. D. numbers. The distribution of the Reading gain scores is shown in Table 2.

The second grade had 96 per cent attendance during the test period for the third group. Apparently, lack of attendance was compensated for by additional help since there was only correlation significant at the .05 level between Reading Total pretest and attendance as shown in Table 3. There were no

significant differences between the groups of pupils who were not there for both pretest and posttest and the group of pupils who took both pretest and posttest (Table 4).

2. Third Grade

The posttest average grade equivalents indicated that the third grade was from eight to twelve months below the expected level of 3.7 though over the expected 100 per cent rate of gain was made on the Spelling and Math Computation subtests (Table 5). The frequency analysis of the gain in months on the Reading Total subtest (Table 6) gives evidence that although the average rate of gain was only 79 per cent, sixteen out of thirty-five pupils who took both pretest and posttest did make over the expected 6 months gain. Attendance for this grade level was 95 per cent. No significant correlations were found for the third grade (Table 7). No significant differences were found between the pretest scores for the pupils who took the pretest only and those who took both pretest and posttest; or between the posttest scores of the pupils who took the posttest only and those who took both the pretest and posttest (Table 8).

3. Fourth Grade

The average grade equivalents on the MAT subtests indicated the class was from five to eleven months below the expected grade level of 4.7 on the posttest. The objective of a month's gain for a month in the program was met on the Reading, Language Total, and Spelling subtests with rates of gain exceeding 100 per cent. The fourth grade attendance was 94 per cent.

4. Fifth Grade

The divergence from the expected average grade equivalent for the fifth grade posttests increased over the fourth grade divergence. The subtests grade equivalents were from five to fifteen months below the expected level of 5.7. However, the Word Knowledge, Reading, Language, and Language Study Skills subtests did show rates of gain over 100 per cent for the 1970-71 year.

For some reason, the Social Studies Study Skills subtest had an 11 per cent loss. Significant correlations occurred between Language posttests and attendance (.01 level) and between Arithmetic Computation posttests and attendance (.05 level). The average rate of attendance was 94 per cent.

5. Sixth Grade

The posttests average grade equivalents on the various MAT subtests indicated the class was from nine to twenty months below the expected level. The class made the expected 100 per cent gain on two of the subtests, Reading and Language Study Skills but made almost no gain on two other subtests, Social Studies Information and Science. The correlation between Science gain and attendance was significant at the .05 level. The average rate of attendance for this grade level was 96 per cent

6. Seventh Grade

The gap beteen actual average grade equivalents and the expected level on the posttests widened to a range of thirteen to sixteen months below the expected 7.7 on the various subtests (Table 9). Losses between the pretests and posttests were incurred on the Language Study Skills (-18 per cent), Social Studies Information (-40 per cent), and Social Studies Study Skills (-17 per cent) subtests. Three other subtests, Word Knowledge, Arithmetic Problem Solving Concepts, and Science had rates of gain over 100 per cent. The frequency distribution for the Reading subtest is shown in Table 10.

The correlations between Arithmetic Computation posttests and between Arithmetic Computation gains and attendance were significant at the .05 level (Table 11). The average rate of attendance was 94 per cent.

The third group (both pretest and postest) scored significantly higher on the Word Knowledge and Language posttests than did the group that took the posttests only. This is indicated by the t tests in Table 12.

B. Supplementary Programs

1. Tutoring Programs

Pre and post MAT scores were matched for 34 of the pupils helped by the second/third grade combination class teacher, or by one of the tutors available from the Volunteers for Reading or the Tech Brothers.

An analysis of variance was performed on the gain scores and the results shown in Table 13 were not significant. The fact that there was no significant difference between the groups is in itself a positive statement about the tutoring program, since the objective was to compensate for learning difficulties and without the additional help the tutored pupils may have made significantly less academic achievement than the untutored group. It is significant to note that the mean gain for the group tutored by the second/third grade combination teacher was higher than the mean gain of the other three groups on the Language Total subtest whereas the mean gains for this group were lower than the other three groups on the other three subtests. The pupils tutored by the second/third grade teacher did gain in Language Total, but apparently at the expense of the other subject areas.

2. Typing Program

Nineteen of the twenty-two seventh grade typing pupils responded to the About Myself Scale at the beginning and toward the end of the typing instruction. One of the objectives of the typing program, an increase in self-concept between pretest and posttest, was apparently met according to the gain score *t* tests in Table 14. The typing pupils believed they had made significant positive change in expressing ideas in writing, mechanical ability, ability to get along with others, self-confidence, and appearance.

3. Prekindergarten Program

Luckie Street Elementary School was one of ten Title I schools to have a prekindergarten group. In evaluating the

entire prekindergarten program for 1970-71, two instruments were used, the Checklist for Basic Skills (Basecheck) and the Teacher Observation of Pupils Survey (TOPS). The Basecheck was administered in October, 1970 and April, 1971, and gain score t tests were performed on the pre and post scores by category. Four categories had t scores significant at the .05 level (Table 15): Color Naming, Receptive Prepositions, Expressive Vocabulary, and Attributes. Two more categories had t scores significant at the .01 level: Recognizing Shapes and Receptive Vocabulary. The Total Score also had a t score significant at the .01 level. The data for the entire prekindergarten program is given in Table 16. In visually comparing Tables 15 and 16, it is apparent that the gains made by Luckie Street prekindergarten pupils with significant t scores on six of the twenty-seven categories were not as broad as the gains made by the entire Title I prekindergarten program of which Luckie was a part. This may reflect differences in teaching methods and/or curriculum.

The TOPS was administered by the teaching teams in January and again in May. The results, shown in Table 17, indicates the percentage of pupils able to perform the items on TOPS at the first and second testings and the amount of change in the percentages. The prekindergarten pupils at Luckie according to the TOPS completed by the prekindergarten teaching team, regressed in Total Auditory Perception and Total Self-Concept by four per cent while they progressed in Total Health and Safety by nine per cent, Total Social Behaviors by thirteen per cent, and Total Visual Perception by nineteen per cent. The negative figures may be due to the tendency to become more critical the longer the child is observed and compared to other children or they may be due to differences in observers. The three positive percentages are equal or above the respective percentages of the total Title I prekindergarten program. The total effect of the analysis of Basecheck and Tops data from Luckie Street, while not as broad as it might have been, was significantly positive in many areas.

There was a correlation of .519 significant at the .01 level between the Basecheck total scores and the TOPS total scores. The significant correlation indicated that the outside observers came to the same conclusions about the knowledge of the pupils as the teaching teams, and that the Basecheck and TOPS measure the same types of knowledge. For further information on the prekindergarten program, see the Evaluation of the Title I Prekindergarten Progam, 1970-71, Volume V, Number 37.

Samples of kindergarten pupils with and without prekindergarten experience were given the Basecheck in the fall of 1970. The resulting t tests for Luckie Street (Table 18) indicated the sample with prekindergarten experience exhibited superior knowledge on the Recognizing Shapes and Attributes categories. Since the Basecheck was administered in the fall, it reasonably can be assumed this superior knowledge was a result of the prekindergarten program the year before. The data from eight schools with prekindergarten groups is shown in Table 19. The differences between the groups with and without prekindergarten experience were not as pronounced in the various categories at Luckie Street as with the composite of eight schools including Luckie Street. This may be an indication that the children most in need of the prekindergarten training were the ones involved in the program.

4. Program of Education and Career Exploration (PECE)

The coordinator of the Program of Education and Career Exploration (PECE) at Luckie also evaluated the program. The evaluation was done as a research project in a credit course at the University of Georgia. The purpose of the evaluation was to determine the extent to which seventh grade pupils met the seventeen stated objectives after participating in the program for one semester. The objectives listed on pages 10 and 11 involve growth in self-concept, changes in behavior patterns, increased information and awareness about careers and vocational development, and the decision-making process.

The procedure used in the evaluation was to randomly assign one-half of the 30 seventh grade pupils to participate in PECE during the first semester (experimental group) and one-half in the second semester (control group) program. These two groups were assumed to be similar since there was no significant difference in their scores on the California Test of Mental Maturity.

A comparison was made of the performance of both groups at the end of the first semester. Progress of the second semester group was determined by pretest and posttest data.

Three instruments were used to determine the extent to which the 17 objectives had been reached:

a. PECE Knowledge Test was developed by the Georgia State Department of Education and the University of Georgia. This instrument measured those objectives specifically related to occupational knowledge.

b. Coopersmith Self-Esteem Inventory (Coopersmith, 1967) was designed to indicate the pupil's opinion about himself.

c. What Would You Do If -- a questionnaire developed by the evaluator, was designed to measure growth toward the attitudinal and problem-solving objectives.

The results, reported by the coordinator-evaluator indicated that subjects who had participated in the program showed significant gain in the areas measured when compared with their peers in the control group. The experimental group also showed significant increase from pretest to posttest on the occupational information inventory and in their ability to identify a number of occupations and specific work roles.

## IX. COST ANALYSIS

The cost per pre/post pupil for 1970-71 ranged from a low of $941 to a high of $955 for grades 2-7 (Table 20). There is little difference in the cost per pre/post pupil among the grade levels, but when divided by corresponding rates of gain for reading, the differences among the grade levels become more apparent.

Due to the fact that the rates of gain for reading exceeded 100 per cent in grades 2, 4, 5, and 6, the predicted costs per pupil for one grade unit of gain are less than the costs per pre/post pupil during 1970-71. It must be noted, however, that the average posttest scores for these same grade levels were 4, 7, 13, and 17 months below the expected grade equivalents on the MAT schedule (Table 21). Therefore, the predicted costs for one-grade-unit of gain by grade level of $905 for the second, $1,097 for the third, $905 for the fourth, $757 for the fifth, $884 for the sixth, and $1,827 for the seventh should be combined with the average posttest scores to determine if more or less time, effort, and money should be expended on any particular grade level.

## X. CONCLUSIONS

The second, fourth, fifth, and sixth grade pupils made substantial gains on the Metropolitan Achievement Tests (MAT) Reading subtest during the 1970-71 above the expected rate of gain of 100 per cent. The third grade approached the expected rate of gain with 87 per cent. The one grade level that fell seriously short of the expected gain was the seventh grade with a rate of gain of 52 per cent. The seventh grade experienced problems with teaching personnel during 1970-71 and it is thought that this was the main contributor to the low rate of gain on the Reading subtest.

There was no statistically significant difference on the MAT gain scores among the groups of pupils tutored by the second-third grade combination class teacher, the Volunteers for Reading, or the Tech Brothers, and those not tutored at all which can be considered a positive factor since without the additional help the tutored pupils may have made significantly less gain. The one disturbing fact regarding this data was the apparent focusing on the

Language Total subject matter by the second-third grade combination class teacher in the tutoring of the upper grade children.

Nineteen seventh grade typing pupils felt they made statistically significant positive change in expressing ideas in writing, mechanical ability, ability to get along with others, self-confidence, and appearance as measured by the pretest/posttest scores on the About Myself Scale.

The overall effect of the prekindergarten program as measured by the Basecheck Total score was significantly positive. There was also some positive carry over effect into the kindergarten year for the prekindergarten group of 1969-70 although the effect was not as noticeable at Luckie as it was for the eight schools together.

The PECE objectives were met as determined by the program evaluator with the use of the PECE Knowledge Test, the Coopersmith Self-Esteem Inventory, and the What Would You Do If questionnaire.

The approximate cost of achieving an overall rate of gain for reading of 95 per cent for grades 2-7 was $953 per pre/post pupil and the projected cost for achieving one-grade-unit of gain was determined to be $1,003 per pupil.

## XI. RECOMMENDATIONS

To eliminate problems such as were incurred on the seventh grade level at Luckie, further attention should be give to the selection of effective teaching personnel at the beginning of the school year. It is not surprising that pupils subjected to two changes in teaching personnel, and the accompanying problems, during the year failed to gain at the expected rate.

In general, the performance of pupils at Luckie demonstrates that pupils can achieve as expected even though they have many demographic and environmental problems which can hamper progress. The staff and volunteers at Luckie are to be commended for the progress made in pupil achievement during 1970-71.

# APPENDIX

LUCKIE STREET ELEMENTARY SCHOOL

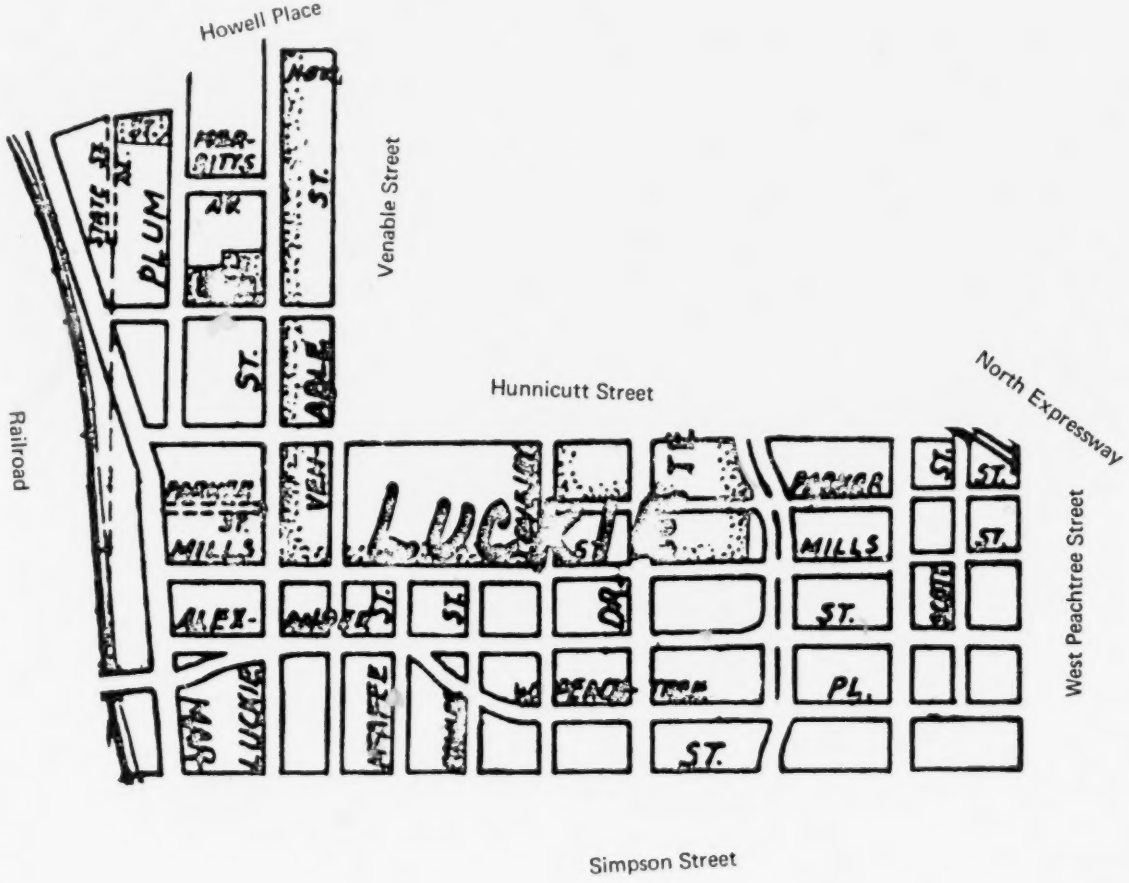
Zone Boundaries

NORTH - Howell Place to Venable Street to Hunnicutt Street to North Expressway (Streets not included)

EAST - West Peachtree Street (West side only)

SOUTH - Simpson Street (both sides included)

WEST - Western and Atlantic Railroad




A-1

TABLE 1

METROPOLITAN ACHIEVEMENT TESTS
AVERAGE GRADE EQUIVALENT SCORES

SECOND GRADE

| Subtest | | School Pre-Post Scores Matched by Pupil I.D.No. Pre | Post | Gain N=19 | Rate of Gain (Per Cent) | Low Socioeconomic Schools Pre-Post Scores Matched by Pupil I.D. No. Pre | Post | Gain N=2,412 | Rate of Gain (Per Cent) | School* Pre-Post Scores Not Matched Pre N=24 | Post N=26 | Gain | Area* Pre-Post Scores Not Matched Pre N=1,408 | Post N=1,411 | Gain | City-wide* Pre-Post Scores Not Matched Pre N=8,965 | Post N=8,662 | Gain |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Word Knowledge | Mean | 1.85 | 2.36 | 0.51 | 81.0 | 1.52 | 2.08 | 0.53 | 84.0 | 1.85 | 2.17 | 0.32 | 1.64 | 2.21 | 0.56 | 1.79 | 2.31 | 0.52 |
| | S.D. | 0.90 | 0.82 | 0.67 | | 0.55 | 0.76 | 0.58 | | .. | .. | .. | 0.21 | 0.33 | 0.20 | 0.40 | 0.46 | 0.22 |
| Word Analysis | Mean | 1.73 | 2.18 | 0.45 | 72.0 | 1.46 | 1.96 | 0.63 | 100.0 | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | S.D. | 0.75 | 0.59 | 0.49 | | 0.45 | 0.76 | 0.39 | | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Reading | Mean | 1.62 | 2.28 | 0.66 | 105.0 | 1.51 | 1.95 | 0.44 | 70.0 | 1.63 | 2.12 | 0.49 | 1.61 | 2.10 | 0.49 | 1.71 | 2.20 | 0.49 |
| | S.D. | 0.57 | 0.83 | 0.60 | | 0.42 | 0.55 | 0.58 | | .. | .. | .. | 0.20 | 0.35 | 0.24 | 0.35 | 0.48 | 0.24 |
| Total Reading | Mean | 1.71 | 2.32 | 0.61 | 96.0 | 1.55 | 1.90 | 0.44 | 70.0 | 1.70 | 2.18 | 0.48 | 1.64 | 2.15 | 0.50 | 1.75 | 2.23 | 0.48 |
| | S.D. | 0.63 | 0.82 | 0.55 | | 0.39 | 0.80 | 0.47 | | .. | .. | .. | 0.20 | 0.33 | 0.20 | 0.35 | 0.45 | 0.19 |
| Total Math | Mean | 1.62 | 2.32 | 0.70 | 111.0 | 1.36 | 1.96 | 0.54 | 86.0 | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | S.D. | 0.40 | 0.79 | 0.45 | | 0.50 | 0.78 | 0.62 | | .. | .. | .. | .. | .. | .. | .. | .. | .. |

*Data obtained from evaluation of Comprehensive Instruction Program (CIP) by W. L. Hughey, July 9, 1971.

TABLE 2

FREQUENCY ANALYSIS OF TOTAL READING GAIN ON THE METROPOLITAN ACHIEVEMENT TESTS*

SECOND GRADE — N = 19

| Number | Per Cent | Gain (In Months) |
|---|---|---|
| 1 | 5.3 | -5 — -4 |
| 1 | 5.3 | -1 — 0 |
| 2 | 10.5 | 1 — 2 |
| 4 | 21.1 | 3 — 4 |
| 3 | 15.8 | 5 — 6 |
| 4 | 21.1 | 7 — 8 |
| 2 | 10.5 | 9 — 10 |
| 1 | 5.3 | 11 — 12 |
| 1 | 5.3 | 23 — 24 |

*There were six months between pretest/posttest.

TABLE 3

CORRELATION BETWEEN METROPOLITAN ACHIEVEMENT TESTS SCORES AND ATTENDANCE

SECOND GRADE — N = 19

| Subtest | Coefficients of Correlation | | | t Test | | |
|---|---|---|---|---|---|---|
| | Pre | Post | Gain | Pre | Post | Gain |
| Word Knowledge vs. Attendance | -0.37 | -0.13 | 0.34 | -1.62 | -0.52 | 1.48 |
| Word Analysis vs. Attendance | -0.23 | -0.39 | -0.12 | -0.96 | -1.73 | -0.50 |
| Reading vs. Attendance. | -0.42 | -0.20 | 0.13 | -1.93* | -0.84 | 0.54 |
| Total Reading vs. Attendance | -0.52* | -0.18 | 0.32 | -2.49* | -0.76 | 1.37 |
| Total Math. vs. Attendance | -0.13 | -0.11 | -0.07 | -0.59 | -0.46 | -0.30 |

*Significant at the .05 level.

TABLE 4

COMPARISON OF METROPOLITAN ACHIEVEMENT TESTS SUBTEST SCORES OF PUPILS TAKING PRETEST OR POSTTEST ONLY WITH SUBTEST SCORES OF PUPILS TAKING BOTH PRETEST AND POSTTEST -- SECOND GRADE

MOBILITY INDEX FOR SCHOOL = 0.22

| | Pretest Scores | | | | | | | Posttest Scores | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pretest Only | | | Pretest and Posttest | | | t | Posttest Only | | | Pretest and Posttest | | | t |
| Subtest | No. | Mean | S.D. | No. | Mean | S. D. | Test | No. | Mean | S.D. | No. | Mean | S. D. | Test |
| Word Knowledge | 3 | 2.03 | 0.31 | 19 | 1.85 | 0.90 | 0.35 | 7 | 1.79 | 0.56 | 19 | 2.36 | 0.82 | -1.70 |
| Word Analysis | 3 | 1.80 | 0.17 | 19 | 1.73 | 0.75 | 0.17 | 7 | 1.89 | 0.75 | 19 | 2.18 | 0.59 | -1.05 |
| Reading | 3 | 1.73 | 0.38 | 19 | 1.62 | 0.57 | 0.34 | 7 | 1.84 | 0.37 | 19 | 2.28 | 0.83 | -1.33 |
| Total Reading | 3 | 1.93 | 0.29 | 19 | 1.71 | 0.63 | 0.60 | 7 | 1.83 | 0.44 | 19 | 2.32 | 0.82 | -1.48 |
| Total Math | 3 | 2.07 | 0.68 | 21 | 1.62 | 0.40 | 0.40 | 5 | 1.88 | 0.86 | 19 | 2.32 | 0.79 | -1.11 |

TABLE 5

METROPOLITAN ACHIEVEMENT TESTS
AVERAGE GRADE EQUIVALENT SCORES

THIRD GRADE

| Subtest | | School Pre-Post Scores Matched by Pupil I.D.No. Pre | Post | Gain N=35 | Rate of Gain (Per Cent) | Low Socioeconomic Schools Pre-Post Scores Matched by Pupil I.D.No. Pre | Post | Gain N=2,445 | Rate of Gain (Per Cent) | School* Pre-Post Scores Not Matched Pre N=38 | Post N=39 | Gain | Area* Pre-Post Scores Not Matched Pre N=1,311 | Post N=1,360 | Gain | City-wide* Pre-Post Scores Not Matched Pre N=8,362 | Post N=8,370 | Gain |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Word Knowledge | Mean | 2.23 | 2.83 | 0.59 | 94.0 | 2.15 | 2.64 | 0.49 | 78.0 | 2.23 | 2.90 | 0.67 | 2.26 | 2.80 | 0.54 | 2.54 | 3.05 | 0.51 |
| | S.D. | 0.55 | 0.74 | 0.52 | | 0.66 | 0.93 | 0.62 | | .. | .. | .. | 0.32 | 0.38 | 0.23 | 0.64 | 0.71 | 0.23 |
| Word Analysis | Mean | 2.17 | 2.52 | 0.36 | 57.0 | 2.01 | 2.49 | 0.48 | 76.0 | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | S.D. | 0.69 | 0.75 | 0.38 | | 0.79 | 0.94 | 0.60 | | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Reading | Mean | 2.17 | 2.71 | 0.55 | 87.0 | 1.96 | 2.49 | 0.67 | 106.0 | 2.17 | 2.79 | 0.62 | 2.07 | 2.71 | 0.64 | 2.23 | 2.90 | 0.57 |
| | S.D. | 0.74 | 0.69 | 0.46 | | 0.65 | 0.94 | 0.69 | | .. | .. | .. | 0.33 | 0.36 | 0.22 | 0.63 | 2.68 | 0.27 |
| Total Reading | Mean | 2.36 | 2.85 | 0.50 | 79.0 | 2.05 | 2.61 | 0.55 | 87.0 | 2.19 | 2.85 | 0.66 | 2.14 | 2.75 | 0.61 | 2.43 | 2.95 | 0.53 |
| | S.D. | 0.83 | 0.80 | 0.83 | | 0.71 | 0.78 | 0.69 | | .. | .. | .. | 0.33 | 0.34 | 0.20 | 0.66 | 0.69 | 0.21 |
| Total Math | Mean | 2.19 | 2.77 | 0.58 | 92.0 | 2.03 | 2.53 | 0.50 | 79.0 | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | S.D. | 0.61 | 0.73 | 0.44 | | 0.65 | 0.86 | 0.63 | | .. | .. | .. | .. | .. | .. | .. | .. | .. |

*Data obtained from evaluation of Comprehensive Instructional Program (CIP) by W. L. Hughey, July 9, 1971.

TABLE 6

FREQUENCY ANALYSIS OF TOTAL READING GAIN
ON THE METROPOLITAN ACHIEVEMENT TESTS*

THIRD GRADE — N = 35

| Number | Per Cent | Gain (In Months) |
|---|---|---|
| 1 | 2.9 | -5 — -4 |
| 2 | 5.7 | -3 — -2 |
| 1 | 2.9 | -1 — 0 |
| 1 | 2.9 | 1 — 2 |
| 5 | 14.3 | 3 — 4 |
| 9 | 25.7 | 5 — 66 |
| 9 | 25.7 | 7 — 8 |
| 5 | 14.3 | 9 — 10 |
| 1 | 2.9 | 11 — 12 |
| 1 | 2.9 | 21 — 22 |

*There were six months between pretest/posttest.

TABLE 7

CORRELATION BETWEEN METROPOLITAN ACHIEVEMENT TESTS SCORES AND ATTENDANCE

THIRD GRADE — N = 35

| Subtest | Coefficients of Correlation | | | t Test | | |
|---|---|---|---|---|---|---|
| | Pre | Post | Gain | Pre | Post | Gain |
| Word Knowledge vs. Attendance | 0.00 | 0.05 | 0.07 | 0.20 | 0.30 | 0.40 |
| Word Analysis vs. Attendance | 0.10 | -0.07 | -0.32 | 0.58 | -0.40 | -1.95 |
| Reading vs. Attendance | 0.11 | 0.15 | 0.05 | 0.61 | 0.86 | 0.30 |
| Total Reading vs. Attendance | 0.08 | 0.11 | 0.06 | 0.48 | 0.63 | 0.36 |
| Total Math vs. Attendance | -0.01 | 0.04 | 0.05 | -0.07 | 0.21 | 0.27 |

TABLE 8

COMPARISON OF METROPOLITAN ACHIEVEMENT TESTS SUBTEST SCORES OF PUPILS TAKING PRETEST OR POSTTEST ONLY WITH SUBTEST SCORES OF PUPILS TAKING BOTH PRETEST AND POSTTEST — THIRD GRADE
MOBILITY INDEX FOR SCHOOL = 0.22

| Subtest | Pretest Scores | | | | | | | Posttest Scores | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pretest Only | | | Pretest and Posttest | | | t | Posttest Only | | | Pretest and Posttest | | | t |
| | No. | Mean | S.D. | No. | Mean | S. D. | Test | No. | Mean | S.D. | No. | Mean | S. D. | Test |
| Word Knowledge | 3 | 2.20 | 0.20 | 35 | 2.23 | 0.53 | -0.11 | 4 | 3.48 | 1.59 | 35 | 2.83 | 0.74 | 1.46 |
| Word Analysis | 3 | 1.90 | 0.26 | 35 | 2.17 | 0.69 | -0.66 | 4 | 3.05 | 1.14 | 35 | 2.52 | 0.75 | 1.27 |
| Reading | 3 | 2.17 | 0.15 | 35 | 2.17 | 0.74 | 0.00 | 4 | 3.45 | 1.41 | 35 | 2.71 | 0.69 | 1.80 |
| Total Reading | 3 | 2.20 | 0.17 | 35 | 2.19 | 0.61 | 0.02 | 4 | 3.60 | 1.70 | 35 | 2.77 | 0.73 | 1.85 |
| Total Math | 3 | 2.30 | 0.17 | 35 | 2.36 | 0.83 | -0.12 | 4 | .25 | 1.08 | 35 | 2.85 | 0.80 | 0.91 |



TABLE 9

ANALYSIS OF METROPOLITAN ACHIEVEMENT TESTS SUBTEST SCORES
SEVENTH GRADE — N = 22

| Subtest | Pretest | | Posttest | | Gain* | | Rate of Gain (Per Cent) |
|---|---|---|---|---|---|---|---|
| | Mean | S.D. | Mean | S.D. | Mean | S. D. | |
| Word Knowledge | 5.22 | 0.92 | 5.86 | 0.98 | 0.64 | 0.79 | 102.0 |
| Reading | 5.07 | 1.40 | 5.39 | 1.54 | 0.33 | 1.19 | 52.0 |
| Language | 5.43 | 1.15 | 5.82 | 1.19 | 0.38 | 1.16 | 61.0 |
| Language Study Skills | 6.17 | 2.43 | 5.66 | 1.73 | -0.51 | 1.70 | - 81.0 |
| Arithmetic Computation | 5.91 | 6.97 | 6.35 | 0.87 | 0.44 | 0.77 | 69.0 |
| Arithmetic Problem Solving Concepts | 5.78 | 1.01 | 6.49 | 1.14 | 0.71 | 0.79 | 112.0 |
| Social Studies Information | 5.70 | 1.12 | 5.68 | 1.49 | -0.03 | 0.97 | - 4.0 |
| Social Studies Study Skills | 5.30 | 1.31 | 5.20 | 1.74 | -0.10 | 1.24 | - 17.0 |
| Science | 4.82 | 1.05 | 5.62 | 1.08 | 0.80 | 1.13 | 127.0 |

*Expected gain = 0.63 (a one month gain for each month in the program).

TABLE 10

FREQUENCY ANALYSIS OF TOTAL READING GAIN
ON THE METROPOLITAN ACHIEVEMENT TESTS*

SEVENTH GRADE -- N = 19

| Number | Per Cent | Gain (In Months) |
|---|---|---|
| 1 | 5.3 | -27 — -26 |
| 1 | 5.3 | -11 — -10 |
| 2 | 10.5 | - 7 — - 6 |
| 2 | 10.5 | - 3 — - 2 |
| 1 | 5.3 | - 1 — 0 |
| 1 | 5.3 | 1 — 2 |
| 1 | 5.3 | 3 — 4 |
| 3 | 15.8 | 5 — 6 |
| 1 | 5.3 | 7 — 8 |
| 3 | 15.8 | 11 — 12 |
| 2 | 10.5 | 15 — 16 |
| 1 | 5.3 | 25 — 26 |

*There were six months between pretest/posttest.

TABLE 11

CORRELATION BETWEEN METROPOLITAN ACHIEVEMENT TESTS SCORES AND ATTENDANCE

SEVENTH GRADE — N = 22

| Subtest | Coefficients of Correlation | | | t Test | | |
|---|---|---|---|---|---|---|
| | Pre | Post | Gain | Pre | Post | Gain |
| Word Knowledge vs. Attendance | -0.161 | 0.355 | 0.250 | 0.67 | 1.57 | 1.07 |
| Reading vs. Attendance | 0.261 | 0.256 | 0.023 | 1.11 | 1.09 | 0.09 |
| Language vs. Attendance | 0.253 | 0.275 | 0.032 | 1.08 | 1.18 | 0.13 |
| Language Study Skills vs. Attendance | 0.079 | 0.118 | 0.008 | 0.33 | 0.49 | 0.03 |
| Arithmetic Computation vs. Attendance | 0.096 | 0.490* | 0.468* | 0.40 | 2.32* | 2.18* |
| Arithmetic Problem Solving Concepts vs. Attendance | 0.276 | 0.298 | 0.080 | 1.19 | 1.29 | 0.33 |
| Social Studies Information vs. Attendance | 0.270 | 0.279 | 0.116 | 1.26 | 1.29 | 0.52 |
| Social Studies Study Skills vs. Attendance | 0.210 | 0.156 | -0.004 | 0.96 | 0.71 | -0.02 |
| Science vs. Attendance | 0.094 | 0.248 | 0.149 | 0.42 | 1.15 | 0.68 |

*Significant at the .05 level.

TABLE 12

COMPARISON OF METROPOLITAN ACHIEVEMENT TESTS SUBTEST SCORES OF PUPILS TAKING PRETEST OR POSTTEST ONLY WITH SUBTEST SCORES OF PUPILS TAKING BOTH PRETEST AND POSTTEST -- SEVENTH GRADE
MOBILITY INDEX FOR SCHOOL = 0.22

| | Pretest Scores | | | | | | | Posttest Scores | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pretest Only | | | Pretest and Posttest | | | t | Posttest Only | | | Pretest and Posttest | | | t |
| Subtest | No. | Mean | S.D. | No. | Mean | S.D. | Test | No. | Mean | S.D. | No. | Mean | S.D. | Test |
| Word Knowledge | 8 | 5.45 | 2.77 | 19 | 5.22 | 0.92 | 0.33 | 4 | 4.45 | 0.79 | 19 | 5.86 | 0.98 | -2.69* |
| Reading | 8 | 4.45 | 2.72 | 19 | 5.07 | 1.40 | -0.79 | 4 | 4.37 | 0.39 | 19 | 5.39 | 1.54 | -1.29 |
| Language | 8 | 4.48 | 2.06 | 19 | 5.43 | 1.15 | -1.55 | 4 | 4.30 | 0.81 | 19 | 5.82 | 1.20 | -2.40* |
| Language Study Skills | 8 | 4.30 | 2.79 | 19 | 6.17 | 2.43 | -1.75 | 4 | 4.40 | 0.99 | 19 | 5.66 | 1.73 | -1.39 |
| Arithmetic Computation | 8 | 5.98 | 1.16 | 19 | 5.91 | 0.70 | 0.18 | 4 | 5.90 | 0.51 | 19 | 6.35 | 0.87 | -0.98 |
| Arithmetic Problem Solving Concepts | 8 | 6.05 | 1.68 | 19 | 5.78 | 1.01 | 0.51 | 4 | 5.35 | 0.66 | 19 | 6.49 | 1.14 | -1.91 |
| Social Studies Information | 8 | 5.09 | 1.89 | 22 | 5.70 | 1.12 | -1.10 | 1 | 4.20 | — | 22 | 5.68 | 1.50 | 0.60 |
| Social Studies Study Skills | 8 | 5.34 | 2.05 | 22 | 5.30 | 1.31 | 0.59 | 1 | 4.10 | — | 22 | 5.20 | 1.74 | 0.12 |
| Science | 8 | 5.38 | 1.70 | 22 | 4.82 | 1.05 | 1.08 | 1 | 4.20 | — | 22 | 5.62 | 1.08 | 0.44 |

*Significant at the .05 level.

TABLE 13

METROPOLITAN ACHIEVEMENT TESTS GRADES 2 - 7
ANALYSIS OF VARIANCE (MEANS AND STANDARD DEVIATIONS)
COMPUTED ON MAT GAINS (POSTTEST SCORES - PRETEST SCORES)

| | Volunteer Tutors (N = 9) | | Tech Brothers (N = 17) | | Second-Third Grade Combination Class Teacher (N = 8) | | No Tutoring (N = 80) | | |
|---|---|---|---|---|---|---|---|---|---|
| Subtest | Mean Gain | S.D. | Mean Gain | S.D. | Mean Gain | S.D. | Mean Gain | S.D. | F Ratio |
| Arithmetic | 0.56 | 0.32 | 0.51 | 0.54 | 0.11 | 0.51 | 0.51 | 0.66 | 1.03 |
| Language Total | 0.50 | 0.25 | 0.64 | 0.67 | 0.95 | 0.88 | 0.67 | 0.92 | 0.41 |
| Reading | 0.49 | 0.35 | 0.57 | 0.77 | 0.26 | 0.70 | 0.72 | 0.94 | 0.83 |
| Word Knowledge | 0.59 | 0.42 | 0.44 | 0.75 | 0.33 | 0.37 | 0.66 | 0.62 | 1.12 |

TABLE 14

ABOUT MYSELF SCALE
SEVENTH GRADE TYPING CLASS
N = 19

My Ability at Present is:

| | Mean Score | | Gain Score t Test |
|---|---|---|---|
| | Pretest | Posttest | |
| A. To be a leader. | 3.16 | 3.32 | 0.77 |
| B. To work on my own. | 4.11 | 4.05 | -0.17 |
| C. To speak before the class. | 2.89 | 3.16 | 1.56 |
| D. To express ideas in writing. | 2.68 | 3.79 | 6.53** |
| E. To think clearly. | 3.74 | 3.84 | 0.52 |
| F. My artistic ability. | 2.84 | 2.74 | -1.00 |
| G. My athletic ability. | 3.21 | 3.21 | — |
| H. My musical ability. | 3.47 | 3.16 | -1.10 |
| I. My acting ability. | 3.32 | 3.21 | -0.35 |
| J. My mechanical ability | 2.79 | 3.79 | 4.14** |
| K. My ability to get along with others. | 3.67 | 4.33 | 2.75* |
| L. My self-confidence. | 3.79 | 4.32 | 3.75** |
| M. My appearance. | 3.37 | 3.84 | 2.14* |
| N. My eagerness to learn. | 3.78 | 4.06 | 0.20 |
| O. My physical health. | 3.83 | 3.94 | 0.49 |
| P. My imagination. | 3.58 | 4.15 | 1.68 |

Scale

5-Very Great; 4-Great; 3-Average; 2-Not too Great; 1-Somewhat Small.

*Significant at the .05 level.
**Significant at the .01 level.

TABLE 15

CHECKLIST FOR BASIC SKILLS (Basecheck)
LUCKIE STREET 1970-1971 PREKINDERGARTEN GROUP

| Item | Max. Score | Pretest N | Pretest Mean | Pretest S. D. | Pretest N Max. Score | Pretest Per Cent of Max. Score | Posttest N | Posttest Mean | Posttest S. D. | Posttest N Max. Score | Posttest Per Cent of Max. Score | Gain Score t Test |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A. Color Naming | 5 | 11 | 1.91 | 1.78 | 2 | 18.0 | 11 | 3.91 | 1.50 | 6 | 55.0 | 2.76* |
| B. Numeral Recognition | 5 | 11 | 1.64 | 2.14 | 3 | 27.0 | 11 | 1.00 | 0.95 | 0 | .. | .. |
| C. Rote Counting | 30 | 11 | 4.45 | 3.75 | 1 | 9.0 | 11 | 5.73 | 3.62 | 1 | 9.0 | 0.90 |
| D. One-to-One Correspondence | 5 | 11 | 2.09 | 1.38 | 1 | 9.0 | 11 | 2.64 | 1.37 | 2 | 18.0 | 1.50 |
| E. Following Direction | 5 | 11 | 3.36 | 0.98 | 0 | .. | 11 | 3.73 | 0.86 | 2 | 18.0 | 1.49 |
| F. Parts of the Body | 5 | 11 | 3.27 | 1.14 | 2 | 18.0 | 11 | 3.91 | 0.79 | 3 | 27.0 | 1.64 |
| G. Visual Perception | 5 | 11 | 0.45 | 0.50 | 0 | .. | 11 | 1.27 | 1.05 | 0 | .. | 1.41 |
| H. Recognizing Shapes | 5 | 11 | 0.82 | 0.57 | 0 | .. | 11 | 2.18 | 0.83 | 0 | .. | 3.81** |
| I. Receptive Prepositions | 5 | 11 | 3.18 | 1.03 | 0 | .. | 11 | 4.00 | 0.74 | 2 | 18.0 | 3.11* |
| J. Expressive Prepositions | 5 | 11 | 2.18 | 1.19 | 0 | .. | 11 | 3.09 | 0.90 | 0 | .. | 1.92 |
| K. Position Words—Receptive | 5 | 11 | 1.00 | 1.13 | 0 | .. | 11 | 1.09 | 1.00 | 0 | .. | .. |
| L. Size and Quantity—Receptive | 5 | 11 | 2.73 | 1.35 | 1 | 9.0 | 11 | 2.73 | 1.29 | 1 | 9.0 | .. |
| M. Sight Words | 15 | 11 | 0.45 | 0.50 | 0 | .. | 11 | 0.27 | 0.45 | 0 | .. | .. |
| N. Upper Case Letters—Receptive | 5 | 11 | 0.64 | 1.07 | 0 | .. | 11 | 0.82 | 1.19 | 0 | .. | .. |
| O. Lower Case Letters—Receptive | 5 | 11 | 1.18 | 1.90 | 2 | 18.0 | 11 | 0.27 | 0.45 | 0 | .. | - 1.67 |
| P. Lower Case Letters—Expressive | 5 | 11 | 0.45 | 1.44 | 1 | 9.0 | 11 | 0.55 | 1.44 | 1 | 9.0 | .. |
| Q. Upper Case Letters—Expressive | 5 | 11 | .. | .. | 0 | .. | 11 | .. | .. | 0 | .. | .. |
| R. Receptive Vocabulary | 5 | 11 | 2.73 | 0.83 | 0 | .. | 11 | 3.73 | 0.75 | 1 | 9.0 | 4.28** |
| S. Expressive Vocabulary | 5 | 11 | 3.00 | 0.60 | 0 | .. | 11 | 3.64 | 0.77 | 1 | 9.0 | 3.13* |
| T. Recognition of First and Last Name | 5 | 11 | 0.18 | 0.39 | 0 | .. | 11 | 0.18 | 0.39 | 0 | .. | .. |
| U. Visual-Motor Coordination | 5 | 11 | 0.55 | 0.89 | 0 | .. | 11 | 1.73 | 1.21 | 0 | .. | .. |
| V. Auditory Discrimination | 5 | 11 | .. | .. | 0 | .. | 11 | 1.27 | 1.66 | 1 | 9.0 | .. |
| W. Grammatical Structure | 5 | 11 | 1.27 | 1.60 | 1 | 9.0 | 11 | 2.73 | 1.54 | 1 | 9.0 | 1.11 |
| X. Attributes | NONE | 11 | 1.00 | 0.60 | 0 | .. | 11 | 3.00 | 1.65 | 0 | .. | 3.16* |
| Y. Information | 5 | 11 | 1.09 | 1.00 | 0 | .. | 11 | 2.36 | 0.88 | 0 | .. | 1.51 |
| Z. Rhyming | 5 | 11 | 0.09 | 0.29 | 0 | .. | 11 | 1.18 | 0.83 | 0 | .. | .. |
| AA. Sequencing | 5 | 11 | 0.73 | 0.75 | 0 | .. | 11 | 1.27 | 1.21 | 0 | .. | 2.14 |
| TOTAL SCORE | | | 40.45 | 16.49 | | | | 58.27 | 14.62 | | | 4.61** |

*Significant at the .05 level.

**Significant at the .01 level.

TABLE 16

CHECKLIST FOR BASIC SKILLS (Basecheck)
TOTAL 1970-1971 PREKINDERGARTEN GROUP

| Item | Max. Score | Pretest N | Pretest Mean | Pretest S. D. | Pretest N Max. Score | Pretest Per Cent of Max. Score | Posttest N | Posttest Mean | Posttest S. D. | Posttest N Max. Score | Posttest Per Cent of Max. Score | Gain Score t Test |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A. Color Naming | 5 | 125 | 2.68 | 1.90 | 34 | 27.0 | 125 | 4.26 | 1.26 | 81 | 65.0 | 7.73** |
| B. Numeral Recognition | 5 | 125 | 1.40 | 1.52 | 12 | 10.0 | 125 | 2.22 | 2.13 | 40 | 32.0 | 4.40** |
| C. Rote Counting | 30 | 124 | 6.90 | 5.67 | 21 | 17.0 | 125 | 13.29 | 9.24 | 32 | 26.0 | 8.19** |
| D. One-to-One Correspondence | 5 | 125 | 2.67 | 1.57 | 20 | 16.0 | 125 | 3.38 | 1.37 | 32 | 26.0 | 5.86** |
| E. Following Direction | 5 | 125 | 3.69 | 1.20 | 36 | 29.0 | 125 | 3.98 | 1.03 | 43 | 34.0 | 2.48* |
| F. Parts of the Body | 5 | 125 | 3.58 | 1.17 | 34 | 27.0 | 125 | 4.09 | 1.12 | 57 | 46.0 | 5.24** |
| G. Visual Perception | 5 | 125 | 1.69 | 1.59 | 11 | 9.0 | 125 | 1.45 | 1.32 | NONE | .. | - 1.04 |
| H. Recognizing Shapes | 5 | 125 | 1.37 | 1.33 | 8 | 6.0 | 125 | 3.35 | 1.20 | 19 | 15.0 | 10.27** |
| I. Receptive Prepositions | 5 | 125 | 3.50 | 1.28 | 31 | 25.0 | 125 | 3.95 | 1.03 | 35 | 28.0 | 4.75** |
| J. Expressive Prepositions | 5 | 125 | 2.46 | 1.49 | 14 | 11.0 | 125 | 3.21 | 1.08 | 12 | 10.0 | 3.80** |
| K. Position Words—Receptive | 5 | 125 | 1.83 | 1.58 | 12 | 10.0 | 125 | 1.51 | 1.15 | 3 | 2.0 | - 2.77** |
| L. Size and Quantity—Receptive | 5 | 124 | 3.13 | 1.28 | 23 | 19.0 | 125 | 3.14 | 1.29 | 16 | 13.0 | 0.06 |
| M. Sight Words | 15 | 125 | 0.70 | 3.62 | NONE | .. | 125 | 0.62 | 1.82 | NONE | .. | - 1.35 |
| N. Upper Case Letters—Receptive | 5 | 125 | 143 | 1.66 | 10 | 8.0 | 125 | 1.70 | 2.01 | 27 | 22.0 | 2.78** |
| O. Lower Case Letters—Receptive | 5 | 125 | 0.89 | 1.26 | 5 | 4.0 | 125 | 0.74 | 1.41 | 7 | 6.0 | 0.50 |
| P. Lower Case Letters—Expressive | 5 | 125 | 0.70 | 1.55 | 12 | 10.0 | 125 | 0.89 | 1.49 | 7 | 6.0 | 0.10 |
| Q. Upper Case Letters—Expressive | 5 | 125 | 0.70 | 1.46 | 10 | 8.0 | 125 | 1.41 | 1.67 | 12 | 10.0 | 0.97 |
| R. Receptive Vocabulary | 5 | 125 | 3.63 | 1.33 | 40 | 32.0 | 125 | 3.81 | 0.96 | 26 | 21.0 | 0.79 |
| S. Expressive Vocabulary | 5 | 125 | 3.18 | 1.08 | 10 | 8.0 | 125 | 3.74 | 0.79 | 14 | 11.0 | 5.59** |
| T. Recognition of First and Last Name | 5 | 124 | 0.94 | 1.40 | 5 | 4.0 | 125 | 1.16 | 1.37 | 4 | 3.0 | .. |
| U. Visual-Motor Coordination | 5 | 109 | 1.39 | 1.37 | 5 | 5.0 | 125 | 2.92 | 1.45 | 20 | 16.0 | 7.59** |
| V. Auditory Discrimination | 5 | 125 | 1.68 | 1.64 | 9 | 7.0 | 125 | 1.58 | 1.71 | 11 | 9.0 | 0.51 |
| W. Grammatical Structure | 5 | 124 | 2.74 | 1.96 | 34 | 27.0 | 125 | 3.24 | 1.64 | 38 | 30.0 | 0.29 |
| X. Attributes | NONE | 111 | 1.50 | 1.33 | NONE | .. | 125 | 3.71 | 2.20 | NONE | .. | 8.71** |
| Y. Information | 5 | 99 | 2.08 | 1.10 | 1 | 1.0 | 125 | 2.54 | 0.78 | NONE | .. | 3.05** |
| Z. Rhyming | 5 | 124 | 1.12 | 1.07 | 1 | 1.0 | 125 | 1.20 | 1.19 | 1 | 1.0 | 0.11 |
| AA. Sequencing | 5 | 123 | 2.10 | 1.62 | 13 | 11.0 | 125 | 2.02 | 1.23 | 6 | 5.0 | - 2.46* |
| TOTAL SCORE | | | 58.74 | 22.89 | | | | 79.10 | 24.67 | | | 11.39** |

*Significant at the .05 level.

**Significant at the .01 level.

TABLE 17

TEACHER OBSERVATION OF PUPILS SURVEY (TOPS)

1970-1971 PREKINDERGARTEN GROUP

| Item | Luckie (N=16) | | | Total (N=138) | | |
|---|---|---|---|---|---|---|
| | First Per Cent | Second Per Cent | Change Per Cent | First Per Cent | Second Per Cent | Change Per Cent |
| Total Auditory Perception | 69.0 | 65.0 | - 4 | 75.0 | 85.0 | +10 |
| Total Health and Safety | 77.0 | 86.0 | + 9 | 74.0 | 83.0 | + 9 |
| Total Self Concept | 92.0 | 88.0 | - 4 | 87.0 | 92.0 | + 5 |
| Total Social Behaviors | 64.0 | 77.0 | +13 | 70.0 | 81.0 | +11 |
| Total Visual Perception | 64.0 | 83.0 | +19 | 76.0 | 91.0 | +15 |

TABLE 18

CHECKLIST FOR BASIC SKILLS (Basecheck) — LUCKIE STREET 1970-1971
KINDERGARTEN PUPILS WITH AND WITHOUT PREKINDERGARTEN EXPERIENCE

| Item | Max. Score | PreKindergarten Experience N | Mean | S.D. | N Max. Score | Per Cent of Max. Score | No PreKindergarten Experience N | Mean | S.D. | N Max. Score | Per Cent of Max. Score | t Test |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A. Color Naming | 5 | 11 | 4.55 | 0.93 | 8 | 72.0 | 5 | 2.20 | 2.59 | 2 | 40.0 | 1.97 |
| B. Numeral Recognition | 5 | 11 | 3.09 | 2.02 | 5 | 45.0 | 5 | 1.80 | 2.05 | 1 | 20.0 | 1.17 |
| C. Rote Counting | 30 | 11 | 12.45 | 9.71 | NONE | .. | 5 | 18.0 | 7.58 | NONE | .. | -1.24 |
| D. One-to-One Correspondence | 5 | 11 | 3.36 | 1.63 | 4 | 36.0 | 5 | 4.00 | 1.73 | 3 | 60.0 | 0.70 |
| E. Following Directions | 5 | 11 | 3.91 | 0.83 | 2 | 18.0 | 5 | 3.20 | 0.84 | NONE | .. | 1.58 |
| F. Parts of the Body | 5 | 11 | 4.36 | 0.81 | 6 | 54.0 | 5 | 3.20 | 1.10 | 1 | 20.0 | 1.53 |
| G. Visual Perception | 5 | 11 | 2.36 | 1.43 | NONE | .. | 5 | 1.40 | 1.14 | NONE | .. | 1.44 |
| H. Recognizing Shapes | 5 | 11 | 2.73 | 1.10 | NONE | .. | 5 | 1.20 | 0.84 | NONE | .. | 3.06** |
| I. Receptive Prepositions | 5 | 11 | 4.55 | 0.52 | 6 | 54.0 | 5 | 3.60 | 1.14 | 1 | 20.0 | 1.78 |
| J. Expressive Prepositions | 5 | 11 | 3.36 | 1.12 | 2 | 18.0 | 5 | 3.40 | 0.55 | NONE | .. | 0.10 |
| K. Position Words—Receptive | 5 | 11 | 1.91 | 0.54 | NONE | .. | 5 | 1.80 | 1.10 | NONE | .. | 0.21 |
| L. Size and Quantity—Receptive | 5 | 11 | 3.82 | 0.87 | 3 | 27.0 | 5 | 3.40 | 1.52 | 2 | 40.0 | 0.58 |
| M. Sight Words | 15 | 11 | 0.91 | 0.83 | NONE | .. | 5 | 6.60 | 7.67 | 2 | 40.0 | -1.65 |
| N. Upper Case Letters—Receptive | 5 | 11 | 1.55 | 1.86 | 1 | 9.0 | 5 | 0.40 | 0.89 | NONE | .. | 1.67 |
| O. Lower Case Letters—Receptive | 5 | 11 | 1.18 | 1.60 | 1 | 9.0 | 5 | 0.40 | 0.89 | NONE | .. | 1.25 |
| P. Lower Case Letters—Expressive | 5 | 11 | 0.55 | 1.29 | NONE | .. | 5 | 0.20 | 0.45 | NONE | .. | 0.80 |
| Q. Upper Case Letters—Expressive | 5 | 11 | 0.73 | 1.42 | NONE | .. | 5 | .. | .. | NONE | .. | 1.71 |
| R. Receptive Vocabulary | 5 | 11 | 3.64 | 0.92 | 2 | 18.0 | 5 | 3.20 | 0.45 | NONE | .. | 1.29 |
| S. Expressive Vocabulary | 5 | 11 | 4.27 | 0.65 | 4 | 36.0 | 5 | 3.80 | 0.45 | NONE | .. | 1.68 |
| T. Recognition of First and Last Name | 5 | 11 | 1.91 | 2.02 | 2 | 18.0 | 5 | 0.80 | 1.30 | NONE | .. | 1.32 |
| U. Visual-Motor Coordination | 5 | 11 | 3.00 | 1.18 | 1 | 9.0 | 5 | 3.60 | 1.52 | 2 | 40.0 | -0.78 |
| V. Auditory Discrimination | 5 | 11 | 1.45 | 1.92 | 1 | 9.0 | 5 | 1.00 | 2.24 | 1 | 20.0 | 0.39 |
| W. Grammatical Structure | 5 | 11 | 3.00 | 2.14 | 4 | 36.0 | 5 | 4.40 | 0.55 | 2 | 40.0 | -2.03 |
| X. Attributes | NONE | 11 | 2.27 | 1.56 | NONE | .. | 5 | 0.80 | 0.84 | NONE | .. | 2.45* |
| Y. Information | 5 | 11 | 2.64 | 0.67 | NONE | .. | 5 | 2.00 | 0.71 | NONE | .. | 1.71 |
| Z. Rhyming | 5 | 11 | .. | .. | NONE | .. | 5 | 1.20 | 1.30 | NONE | .. | -2.07 |
| AA. Sequencing | 5 | 11 | 2.36 | 1.69 | 2 | 18.0 | 5 | 1.60 | 1.52 | NONE | .. | 0.90 |

*Significant at the .05 level.

**Significant at the .01 level.

TABLE 19

CHECKLIST FOR BASIC SKILLS (Basecheck) FOR 1970-1971 KINDERGARTEN PUPILS WITH AND WITHOUT PREKINDERGARTEN EXPERIENCE FROM EIGHT ELEMENTARY SCHOOLS

| Item | Max. Score | PreKindergarten Experience N | Mean | S.D. | N Max. Score | Per Cent of Max. Score | No PreKindergarten Experience N | Mean | S.D. | N Max. Score | Per Cent of Max. Score | t Test |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A. Color Naming | 5 | 96 | 4.65 | 0.90 | 77 | 80.0 | 53 | 3.86 | 1.72 | 32 | 60.0 | 3.11** |
| B. Numeral Recognition | 5 | 96 | 3.14 | 1.82 | 42 | 44.0 | 53 | 2.77 | 1.87 | 16 | 30.0 | 1.16 |
| C. Rote Counting | 30 | 96 | 16.46 | 9.13 | 19 | 20.0 | 53 | 12.83 | 8.55 | 6 | 11.0 | 2.42* |
| D. One-to-One Counting | 5 | 96 | 4.25 | 1.11 | 55 | 57.0 | 53 | 3.92 | 1.32 | 25 | 47.0 | 1.54 |
| E. Following Directions | 5 | 96 | 4.37 | 0.89 | 55 | 57.0 | 53 | 4.07 | 1.01 | 25 | 47.0 | 1.80 |
| F. Parts of the Body | 5 | 96 | 4.45 | 0.83 | 60 | 63.0 | 53 | 4.01 | 0.94 | 19 | 35.0 | 2.83** |
| G. Visual Perception | 5 | 96 | 3.53 | 1.52 | 34 | 35.0 | 53 | 2.50 | 1.76 | 11 | 20.0 | 3.57** |
| H. Recognizing Shapes | 5 | 96 | 3.92 | 1.07 | 34 | 35.0 | 53 | 3.07 | 1.53 | 13 | 24.0 | 3.57** |
| I. Receptive Prepositions | 5 | 96 | 4.33 | 0.90 | 52 | 54.0 | 53 | 3.92 | 1.03 | 19 | 35.0 | 2.42* |
| J. Expressive Prepositions | 5 | 96 | 3.90 | 1.08 | 40 | 42.0 | 53 | 3.43 | 1.07 | 11 | 20.0 | 2.55* |
| K. Position Words--Receptive | 5 | 96 | 3.04 | 1.36 | 23 | 24.0 | 53 | 2.60 | 1.57 | 8 | 15.0 | 1.72 |
| L. Size and Quantity--Receptive | 5 | 96 | 4.05 | 0.98 | 36 | 38.0 | 53 | 3.92 | 1.18 | 24 | 45.0 | 0.68 |
| M. Sight Words | 15 | 96 | 1.78 | 3.09 | 3 | 3.0 | 53 | 1.52 | 3.40 | 3 | 5.0 | 0.46 |
| N. Upper Case Letters--Receptive | 5 | 96 | 3.09 | 1.85 | 36 | 38.0 | 53 | 2.43 | 1.97 | 16 | 30.0 | 1.99* |
| O. Lower Case Letters--Receptive | 5 | 96 | 2.03 | 1.89 | 20 | 21.0 | 53 | 1.30 | 1.64 | 6 | 11.0 | 2.45** |
| P. Lower Case Letters--Expressive | 5 | 96 | 2.06 | 1.99 | 22 | 23.0 | 53 | 1.66 | 1.92 | 8 | 15.0 | 1.20 |
| Q. Upper Case Letters--Expressive | 5 | 96 | 2.18 | 1.99 | 23 | 24.0 | 53 | 1.66 | 2.05 | 9 | 16.0 | 1.49 |
| R. Receptive Vocabulary | 5 | 96 | 4.44 | 0.78 | 58 | 60.0 | 53 | 4.11 | 1.13 | 27 | 51.0 | 1.88 |
| S. Expressive Vocabulary | 5 | 96 | 4.11 | 0.85 | 38 | 40.0 | 53 | 3.60 | 0.88 | 7 | 13.0 | 3.42** |
| T. Recognition of First and Last Name | 5 | 96 | 2.84 | 0.66 | 31 | 32.0 | 53 | 1.79 | 1.78 | 8 | 15.0 | 4.12** |
| U. Visual-Motor Coordination | 5 | 96 | 4.15 | 2.21 | 14 | 15.0 | 53 | 3.41 | 1.36 | 11 | 20.0 | 5.22** |
| V. Auditory Discrimination | 5 | 96 | 2.96 | 1.80 | 22 | 23.0 | 53 | 2.47 | 1.61 | 6 | 11.0 | 1.70 |
| W. Grammatical Structure | 5 | 96 | 4.20 | 1.30 | 59 | 61.0 | 53 | 4.18 | 1.14 | 29 | 54.0 | 0.10 |
| X. Attributes | NONE | 96 | 2.71 | 1.83 | NONE | .. | 53 | 2.30 | 2.04 | NONE | .. | 1.22 |
| Y. Information | 5 | 96 | 3.07 | 0.89 | 6 | 6.0 | 53 | 2.60 | 1.06 | 3 | 5.0 | 2.38** |
| Z. Rhyming | 5 | 96 | 1.98 | 1.57 | 6 | 6.0 | 53 | 1.52 | 1.21 | 2 | 3.0 | 1.99* |
| AA. Sequencing | 5 | 96 | 2.84 | 1.64 | 20 | 21.0 | 53 | 2.66 | 1.68 | 9 | 17.0 | 2.41** |

*Significant at the .05 level.

**Significant at the .01 level.

TABLE 20

COST ANALYSIS OF READING GAINS BY GRADES
Total School Average Daily Attendance (ADA)
For Grades K - 7 = 242

| | GRADES | | | | | | |
|---|---|---|---|---|---|---|---|
| | Second | Third | Fourth | Fifth | Sixth | Seventh | TOTAL |
| ADA for Grade | 24 | 36 | 21 | 22 | 28 | 26 | 157 |
| ADA Pre/Post Population | 19 | 32 | 15 | 17 | 23 | 20 | 126 |
| Per Cent of Total Population | 7.8 | 13.2 | 6.1 | 7.0 | 9.5 | 8.2 | 51.8 |
| Expenditures - Pre/Post Population | | | | | | | |
| A. General Funds | | | | | | | |
| 1. Regular | | | | | | | |
| a. Salary | $11,863 | $20,075 | $ 9,277 | $10,646 | $14,448 | $12,471 | $ 78,780 |
| b. Non-Salary | 3,464 | 5,861 | 2,709 | 3,108 | 4,218 | 3,641 | 23,001 |
| 2. CIP | | | | | | | |
| a. Salary | 72 | 122 | 57 | 65 | 88 | 76 | 480 |
| b. Non-Salary | 59 | 100 | 46 | 53 | 72 | 62 | 392 |
| 3. Total General Funds | | | | | | | |
| a. Salary | $11,935 | $20,197 | $ 9,334 | $10,711 | $14,536 | $12,547 | $ 79,260 |
| b. Non-Salary | 45,163 | 3,523 | 5,961 | 2,755 | 3,161 | 4,290 | 23,393 |
| c. Total General Funds | $15,458 | $26,158 | $12,089 | $13,872 | $18,826 | $16,250 | $102,653 |
| B. Special Funds | | | | | | | |
| 1. Title I | | | | | | | |
| a. Salary | $ 2,470 | $ 4,180 | $ 1,932 | $ 2,217 | $ 3,009 | $ 2,597 | $ 16,405 |
| b. Non-Salary | 38 | 65 | 30 | 34 | 46 | 40 | 253 |
| c. Total Title I | $ 2,508 | $ 4,245 | $ 1,962 | $ 2,251 | $ 3,055 | $ 2,637 | $ 16,658 |
| 2. Title I - Summer | | | | | | | |
| a. Salary | $ 100 | $ 170 | $ 78 | $ 90 | $ 122 | $ 105 | $ 665 |
| b. Non-Salary | 2 | 3 | 1 | 2 | 2 | 2 | 12 |
| c. Total Title I - Summer | $ 102 | $ 173 | $ 79 | $ 92 | $ 124 | $ 107 | $ 677 |
| 3. ESAP | | | | | | | |
| a. Salary | $ 6 | $ 10 | $ 5 | $ 5 | $ 7 | $ 6 | $ 39 |
| b. Non-Salary | | | | | | | |
| c. Total | $ 6 | $ 10 | $ 5 | $ 5 | $ 7 | $ 6 | $ 39 |
| 4. Total Special Funds | | | | | | | |
| a. Salary | $ 2,577 | $ 4,360 | $ 2,015 | $ 2,312 | $ 3,138 | $ 2,709 | $ 17,111 |
| b. Non-Salary | 40 | 68 | 31 | 36 | 49 | 42 | 266 |
| c. Total Special Funds | $ 2,617 | $ 4,428 | $ 2,046 | $ 2,348 | $ 3,187 | $ 2,751 | $ 17,377 |

TABLE 20 (Cont'd)

| | GRADES | | | | | | |
|---|---|---|---|---|---|---|---|
| | Second | Third | Fourth | Fifth | Sixth | Seventh | TOTAL |
| **Total Expenditures--Pre/Post Population** | | | | | | | |
| A. Salaries | $14,511 | $24,558 | $11,349 | $13,023 | $17,764 | $15,256 | $ 96,371 |
| B. Non-salary | 3,563 | 6,029 | 2,786 | 3,197 | 4,339 | 3,745 | 23,659 |
| C. TOTAL EXPENDITURES--PRE/POST POPULATION | $18,074 | $30,587 | $14,135 | $16,220 | $22,013 | $19,001 | $120,030 |
| **Cost per Pre/Post Pupil** | | | | | | | |
| A. General Funds | | | | | | | OVERALL AVERAGE |
| 1. Salary | $ 628 | $ 630 | $ 622 | $ 630 | $ 631 | $ 628 | $ 629 |
| 2. Non-salary | 185 | 186 | 183 | 186 | 186 | 185 | 186 |
| 3. TOTAL GENERAL FUNDS | $ 813 | $ 816 | $ 805 | $ 816 | $ 817 | $ 813 | $ 815 |
| B. Special Funds | | | | | | | |
| 1. Salary | $ 136 | $ 136 | $ 134 | $ 136 | $ 136 | $ 135 | $ 136 |
| 2. Non-salary | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 3. TOTAL SPECIAL FUNDS | $ 138 | $ 138 | $ 136 | $ 138 | $ 138 | $ 137 | $ 138 |
| C. Total Expenditures--Pre/Post Pupils | | | | | | | |
| 1. Salaries | $ 763 | $ 766 | $ 756 | $ 766 | $ 767 | $ 763 | $ 765 |
| 2. Non-salary | 187 | 188 | 185 | 188 | 188 | 187 | 188 |
| 3. TOTAL EXPENDITURES--PRE/POST PUPILS | $ 950 | $ 954 | $ 941 | $ 954 | $ 955 | $ 950 | $ 953 |
| Rate of Reading Gain (Per Cent) | 105 | 87 | 104 | 126 | 108 | 52 | 95 |
| Ending Reading Level (Grade) | 2.3 | 2.7 | 4.0 | 4.4 | 5.0 | 5.4 | |
| **Projected Cost for One-Grade-Unit of Gain** | | | | | | | |
| 1. General Funds | $ 774 | $ 938 | $ 774 | $ 648 | $ 756 | $ 1,563 | $ 858 |
| 2. Special Funds | 131 | 159 | 131 | 109 | 128 | 264 | 145 |
| 3. TOTAL PROJECTED COST FOR ONE-GRADE-UNIT OF GAIN | $ 905 | $ 1,097 | $ 905 | $ 757 | $ 884 | $ 1,827 | $ 1,003 |

TABLE 21

METROPOLITAN ACHIEVEMENT TESTS
READING SUBTEST

| Grade | Number of Pupils | Mean Score Pre | Mean Score Post | No. of Months Posttest Below Expected Level | Gain in Months | Per Cent of Gain | Per Cent of Attendance | Correlation of Reading Gain vs. Attendance |
|---|---|---|---|---|---|---|---|---|
| 2 | 19 | 1.6 | 2.3 | 4 | 0.7 | 105.0 | 96.0 | 0.13 |
| 3 | 35 | 2.2 | 2.7 | 10 | 0.6 | 87.0 | 95.0 | 0.05 |
| 4 | 15 | 3.3 | 4.0 | 7 | 0.7 | 104.0 | 94.0 | 0.03 |
| 5 | 18 | 3.6 | 4.4 | 13 | 0.8 | 126.0 | 94.0 | 0.07 |
| 6 | 24 | 4.3 | 5.0 | 17 | 0.7 | 108.0 | 96.0 | 0.37 |
| 7 | 22 | 5.1 | 5.4 | 23 | 0.3 | 52.0 | 94.0 | 0.02 |